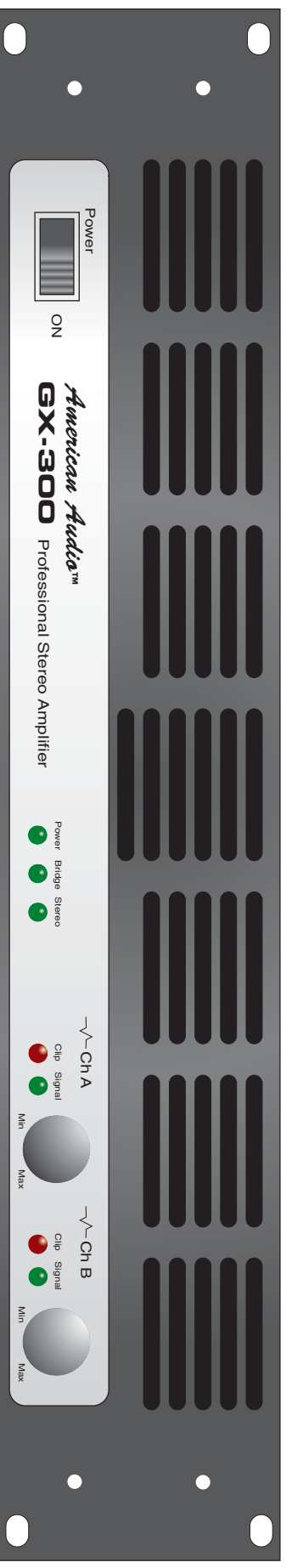


# GX-300

## Professional Power Amplifier



# CONTENTS

QUICK START.....	2
SAFETY PRECAUTION.....	3
FRONT PANEL.....	5
REAR PANEL.....	6
INPUTS.....	7
OUTPUTS.....	8
LOW-CUT FILTER.....	11
RESET BREAKER.....	11
STEREO/BRIDGED MONO.....	11
PROTECTION.....	11
SPECIFICATIONS.....	12

**Quick Start:** The following instructions are provide as a guide for those user already familiar with the basic operation of amplifiers.

1. Be sure you amplifier and all other audio equipment is power down before attempting any type of connection. The amplifier power button is located on the lower left-hand side of the front of amplifier.

2. Securely mount the amplifier in standard 19" rack, or position it on a solid surface.

3. Connect the left and right output signal a mixer, preamp, or processor to the amplifiers inputs. Use either balanced/unbalanced 1/4" (6.35 mm) phono jacks, 3-pin balanced XLR jacks, or unbalanced RCA jacks on the rear of amplifier. At this point chose the run the amplifier in BRIDGE or STEREO mode. (Stereo is the default setting, see page 5.)

4. Connect the left and right speakers to the amplifiers output terminals. Use either the 1/4" (6.35 mm) jacks or the 3-way banana binding post.

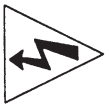
**WARNING:** The red banana output terminals on the rear of the unit marked with the ⚡ symbol are dangerous when active. External wiring connected to these terminals requires installation by a qualified person, or make use of preconstructed speaker cables available at a local professional sound retailer.

5. Connect the amplifier to a power outlet with a matching power supply.

6. Turn on all audio components except the amplifier. Be sure both Channel A and Channel B volume controls are turned all the way down (full counter-clockwise), and turn on main power.

7. Turn the mixer or other audio components up and adjust the amplifier levels. The green signal LED's on the face of the unit will indicate signal is being received.

# Important Precautions



**CAUTION**  
Do not open -  
Risk of electric shock



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER. THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER ALL SERVICE TO YOUR AUTHORIZED AMERICAN AUDIO® DEALER.



The lightning flash with an arrow triangular symbol is intended to alert the user to the presence of non insulated "dangerous voltage" within the products enclosure, and may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point triangular symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the user manual accompanying the CD player.

FOR OPTIMUM PERFORMANCE AND RELIABILITY DO NOT PRESENT THE AMPLIFIER WITH A SPEAKER LOAD OF LESS THAN 2 OHMS. OR ANY COMBINATION OF SPEAKERS THAT TOGETHER ARE LESS THAN 2 OHMS!  
USING ONE SPEAKER, IT MUST BE RATED AT 4 OR MORE OHMS.  
USING TWO SPEAKERS, THEY MUST RATED EACH AT 4 OR MORE OHMS.  
USING THREE SPEAKERS, THEY MUST BE RATED EACH AT 8 OR MORE OHMS.

POUR ASSURER LA FIABILITE ET OBTENIR UNE PERFORMANCE OPTIMALE, NESOUMETTE JAMAIS L'AMPLIFICATEUR A UNE CHARGE D'IMPEDANCE TOTALE INFIERIEURE A 2 OHMS, NI AVEC UN H.P. NI EN COMBINAISON DES H.P.  
AVEC UN H.P., IL FAUT UNE CHARGE D'IMPEDANCE MINIMUM DE 2 OHMS.  
AVEC DEUX H.P., FAUT POUR CHAOUN UNE CHARGE D'IMPEDANCE MINIMUM DE 4 OHMS.  
AVEC TROIS H.P., FAUT POUR CHAOUN UNE CHURGE D'IMPEDANCE MINIMUM DE 8 OHMS.

1. Be sure to save the packing carton in the unlikely event this unit may have to be return the unit for service.
2. Read all documentation before attempting to operate your new amplifier. Please save all you documentation for future reference.
3. To reduce the risk of fire or electrical shock, do expose this unit to rain, moisture, water or other liquids.
4. Be sure that the local power outlet match that or the required voltage for your amplifier.
5. Do not attempt to operate this unit if the power cord has been frayed or broken. Please route your power cord out of the way of foot traffic.
6. Do not attempt to remove or break off the ground prong from the electrical cord. This prong is used to reduce the risk of electrical shock and fire in case of an internal short.
7. Always have the front gain controls set to their lowest level
8. during initial power-up to prevent speaker damage .
9. Disconnect from main power before making any type of connection.
10. Do not block the units cooling vents or fan intake. If this unit is being used in an extremely dusty or smoky environment, the unit should be blown through on a regular basis.
11. Do not remove the top cover under any conditions. There are no user serviceable parts inside.
12. Do not drive the inputs with a signal level greater than that required to drive equipment to full output.
13. Do not try to run the input signal of an amplifier by the output of any other amplifier.
14. Never ground a RED (positive) terminal.
15. Disconnect the unit's main power when left unused for long periods of time.

# Features

1. Bridge-Mono/Stereo mode switch. This switch allow the amplifier operating mode to toggle between stereo and bride-mono mode.
2. Built-in protection circuitry: DC output protection, Overload protection (clip limiting), and Short circuit protection.
3. Variable speed cooling fan for optimal performance and cooling.
4. 19" (48.3 cm) rackmountable case design.
5. 9" (220 cm) shallow case design, allowing this amp to be installed in a shallow rack, stacked on top of each other, or stacked on a cart.
6. Three different input options; 1/4" balanced/unbalanced jacks, balanced XLR jacks, and Unbalanced RCA jacks.
7. Two different output options (speaker connections); 1/4" jacks or 3-way banana style binding post.
8. Dedented channel gain controls on the front panel.
9. Rear panel 5 amp reset button (breaker type).
10. Two year limited warranty.
11. Light weight only 16 Lbs (4.1 Kgs)
12. Two rackspace case design.
13. Mode monitor LED's on the front panel detail Bride-Mono or Stereo Operation.
14. Signal and Clip LED indicators on the front panel detail input signal integrity.
15. Front panel power switch and power LED indicator.

# General Information

**Introduction:** Congratulations and thank you for purchasing the American Audio® GX-300™ amplifier. This amplifier is a representation of American Audio's continuing commitment to produce the best and highest quality products at an affordable price. Please read and understand this manual completely before attempting to operate your new amplifier. This booklet contains important information concerning the proper any safe operation of your new amplifier.

**Unpacking:** Carefully open and unpack your amplifier. After unpacking, inspect the amplifier for any type of damage that may have occurred during shipping or transit. If you notice any type of damage notify your dealer immediately for instructions.

**Installation:** This amplifier is designed to mount in a standard 19" rack. The front panel provides four holes used to screw the unit into a rack.



**Cart Installation:** Use only with a stable cart or stand. When a cart is used, use caution when moving the cart/unit combination to avoid injury from tip-overs.

**Customer Support:** For assistance beyond that which is cover in this manual, American Audio® provides a toll free customer support line, to provide additional set up help and to answer any question should you encounter problems during your set up or initial operation. For service related issue please contact American Audio® Technical Support Team. Service Hours are Monday through Friday 9:00 a.m. to 5:00 p.m. Pacific Standard Time.

Voice: (800) 322-6337

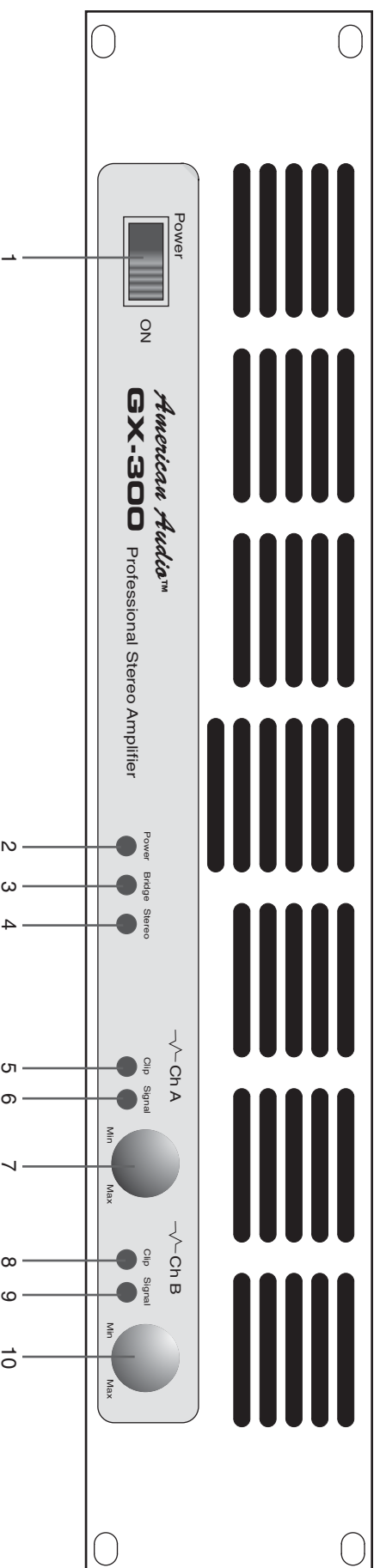
Fax: (323) 582-2610

E-mail: support@americandj.com

You may also visit us on the web at [www.americandj.com](http://www.americandj.com) for any comments or suggestions.

# FRONT PANEL

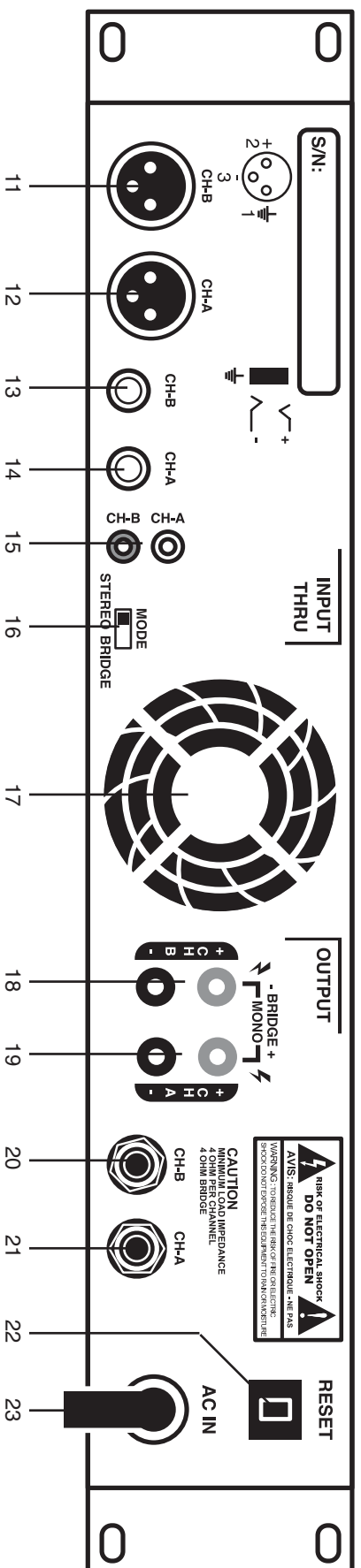
Diagram 1





# REAR PANEL

Diagram 2



## 11. Channel B XLR Input -

Connect a mixer's balanced channel "B" or channel two output signal to this balanced XLR input jack. Pin two is negative, Pin one is ground, Pin three is ground.

## 12. Channel A XLR Input -

Connect a mixer's balanced channel "A" or channel one output signal to this balanced XLR input jack. Pin two is negative, Pin one is ground, Pin three is ground.

## 13. Channel B 1/4" Input -

This jack is a balanced or unbalanced 1/4" phono plug input jack. Connect a mixer's channel "B" or channel two output signal to this input jack. Tip is positive.

## 14. Channel A 1/4" Input -

This jack is a balanced or unbalanced 1/4" phono plug input jack. Connect a mixer's channel "A" or channel one output signal to this input jack. Tip is positive.

## 15. Unbalanced RCA Input -

These jacks are standard unbalanced RCA input jacks. The right channel jack is indicated with red and left is indicated with white.

## 16. Bridge-Mono/Stereo MODE Switch -

This switch changes the amplifier operating mode from stereo to bridge-mono. The amplifier's default operating mode is stereo.

## 17. COOLING FAN -

This is a variable speed cooling fan. Never block the fan in any way or mount in an enclosure rack, doing so may cause the amplifier to overheat and fail.

## 18. Channel 2 Speaker Output/3 Way Binding Post -

Connect your channel two speakers to channel two output.

## 19. Channel 1 Speaker Output/3 Way Binding Post -

Connect your channel one speakers to channel one output.

## 20. Channel 2 1/4" Speaker Output -

Connect your channel two speakers to channel two output.

## 21. Channel 1 1/4" Speaker Output -

Connect your channel one speakers to channel one output.

## 22. RESET BREAKER -

This is a 5 amp breaker, that will clip when ever the unit exceeds the maximum of power drawl.

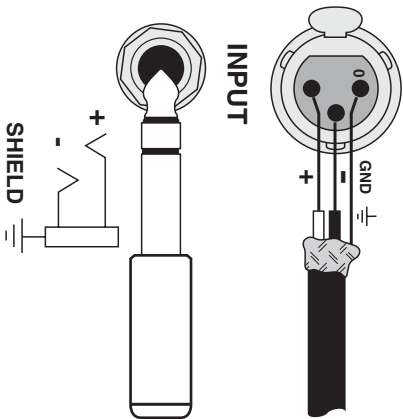
## 23. A/C Power Input -

Never plug your amplifier in to a wall outlet that does not match the required voltage of your amplifier, serious damage may occur to your unit.

INPUTS

The GX-300™ allows for three types of input connector per a channel, a XLR jacks for balanced connections and unbalanced 1/4" and RCA jacks. Use these connection to connect the output signal from a mixer, cross-over or EQ to your GX-300 amplifier. The XLR connection is recommended for cable runs longer than 20ft. When building your own XLR cables follow the pin configuration describe below for proper connections. For cable runs shorter than 20Ft. you may choose the 1/4" input option. The 1/4" input option may be a little more convenient for most user due to the abundant supply of prefabricated cables on the market. You may also use the two different types of input cables to jump a parallel connection to another amp. For Example: Connect a XLR cable to the input of channel one. You may now connect a 1/4" cable to the input put jack of channel one and jump that cable to the input of another amp.

BALANCED



UNBALANCED

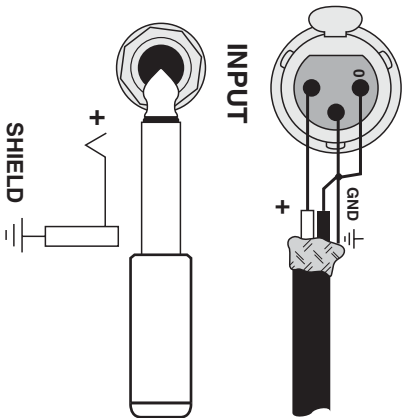


Diagram 4

1/4" Jack (6.35 mm)		XLR Jack
Tip	=	+
Ring	=	-
Sleeve	=	SHIELD

XLR Pin Configuration:  
*US ITT Standard*

- PIN 1:** Ground / Return / 0v
- PIN 2:** Negative data complement (-, Inverted)
- PIN 3:** Positive data (+, Inverted)

## OUTPUTS:

Connect your speakers to the binding post outputs in the rear of the amp. The speaker wire may be connect by bare wire (directly connected usually for permanent connections), banana plug, or spade connector. Connections are made to Channel one and Channel two output for stereo mode or across the red terminals of Channels one and two for Mono Bridge Mode. **Important Notice:** Although a speaker will operate with the positive and negative leads plugged into either terminal on the amplifier binding post, be sure to plug the negative lead into the black terminal and positive lead into the red terminal. Ensuring proper polarity will avoid your speakers being out of phase, that can cause a loss of bass response.

### Bare Wire Connections: (Diagram 5)

When connecting your speakers to the amplifier using bare wire; Unscrew the red and black caps on the binding post, be sure not to completely remove or unscrew the red and black caps. Strip back the wire insulation 1/2" (13mm). Insert the bare wire into the hole that was revealed by unscrewing the binding post cap. After inserting the wire into the binding post hole, screw the binding post cap down on the wire. To reduce the risk of shock or damage to your amplifier, be sure that the wire connected to one binding post does not come in contact with that of another.

### Spade Connector: (Diagram 6)

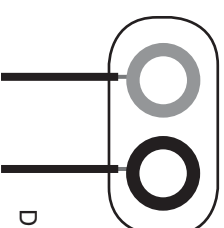
When connecting your speakers to the amplifier using spade connector; Unscrew the red and black caps on the binding post, be sure not to completely remove or unscrew the red and black caps. Insert the spade connector in to the binding post and tighten the caps down on the spade connector. To reduce the risk of shock or damage to your amplifier, be sure that the wire connected to one binding post does not come in contact with that of another.

### Banana Plug:

When connecting your speakers to the amplifier using banana jacks; Be sure that the red and black caps on the binding post are tighten down completely. Insert the banana jacks into the caps of the binding post, be sure that the banana jack is inserted securely to avoid the risk of it popping out.

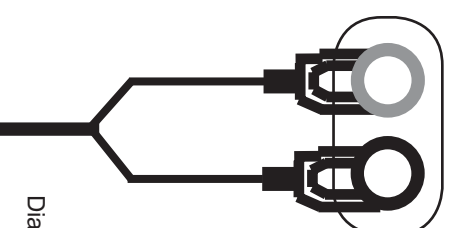
### Bridge-Mono Connections:

Mono bridge operation connections will follow the above descriptions however, when operating in mono bridge operation the speaker connections will run between the two positive (red) leads. Use channel two positive (red) output terminal for negative and the channel one positive (red) output terminal for positive connection. (See page 9 Diagram 8)



Typical Speaker Output Binding Post.  
Insert bare wire into the binding post.

Diagram 5



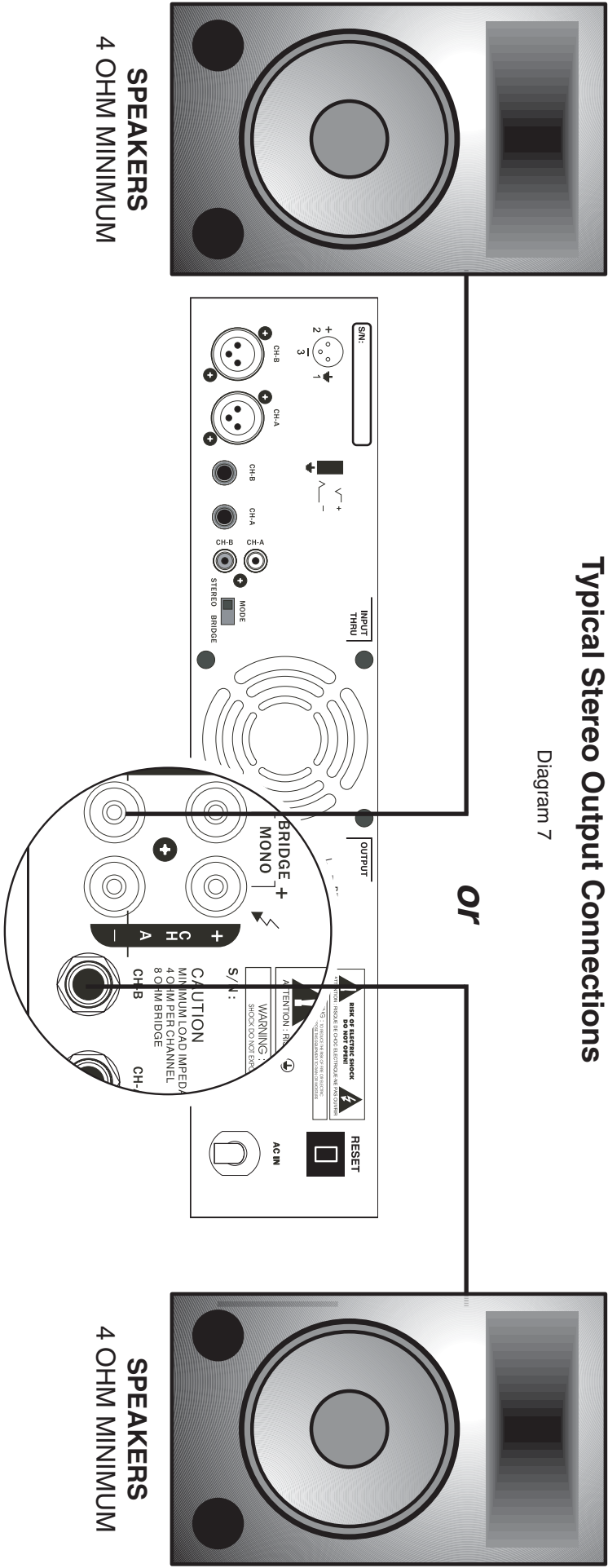
Typical Speaker Output Binding Post.  
Insert spade connector into the binding post and tighten.

Diagram 6



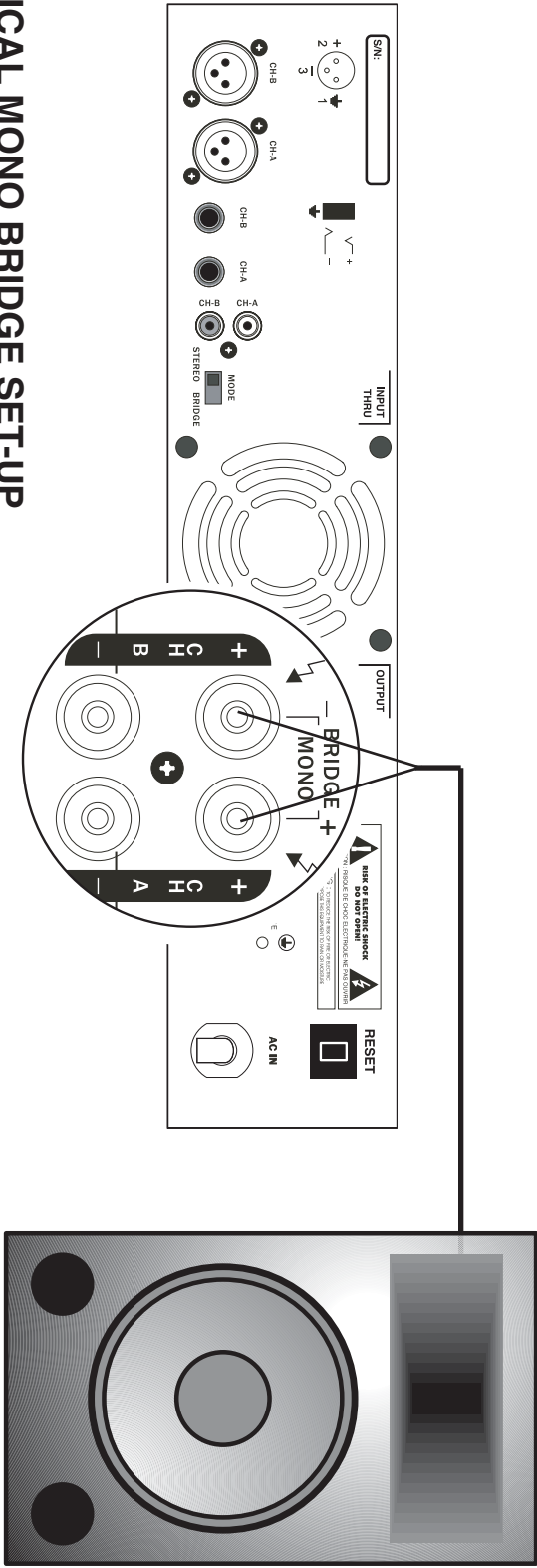
# Typical Stereo Output Connections

Diagram 7



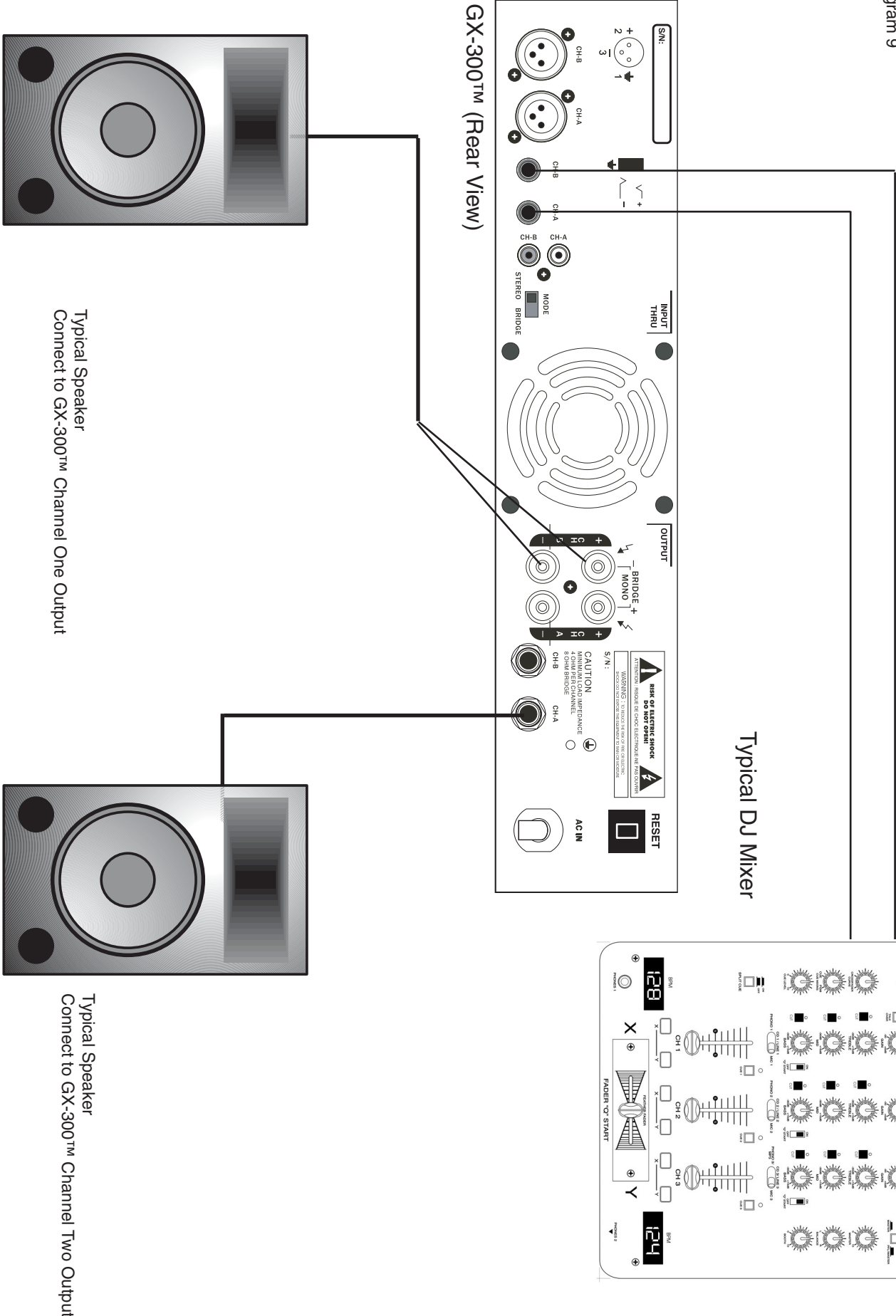
# Typical MONO BRIDGE SET-UP

Diagram 8



# Typical Stereo Set-Up

Diagram 9



## **NORMAL OPERATION:**

Page 10/Diagram 9 show you an example of a typical stereo set-up. Connect your inputs into channels one and two of the amplifier. Connect your speakers to the outputs on the rear of the amplifier. Be sure that your front gain controls are turned down to their lowest level (full counter-clockwise). Turn your amp on. Turn your input level up. Use your front gain controls to regulate the output volume. Be sure not to raise the volume to the clip level however, an intermittent clip signal is acceptable.

## **MONO BRIDGE OPERATION:**

Page 9/Diagram 8 give you a description of mono bridge set-up. Be sure you amplifier and all other equipment is shut off. Press the Stereo/Mono switch to the in position (Page 6/Diagram 2). Connect an input signal to channel one. Connect your speaker across the red output binding post on the rear of your amplifier (See Page 8 Mono Bridge Set-Up). Turn your equipment on (your amplifier should be the last piece you turn on). Apply an input signal to your amplifier. Turn channel two gain up. Use the channel one gain to regulate your amplifier output.

## **PROTECTION:**

### **LIMITER**

During normal operation, the limiter does not affect the audio signal and is, in fact inaudible. It will allow brief clipping of peaks and will only activate when continuous, hard clipping occurs. The limiter will then reduce the audio signal enough to minimize the amount of clipping. When the signal amplitude decreases enough that clipping ends, the limiter will deactivate and cease its gain reduction.

### **SHORT CIRCUIT PROTECTION**

The Output Short circuit protects the output devices from short circuits and stressful loads.

### **THERMAL PROTECTION**

A single variable-speed fan provides adequate cooling. But if the heatsink temperature exceeds 90C., the amplifier will mute until the amplifier cools down.

### **INPUT/OUTPUT PROTECTION**

The input circuits are isolated by 10k resistors. An ultrasonic network uncouples **RF** from the output and helps keep the amplifier stable with reactive loads.

### **RESET BREAKER -**

This is a 5 amp breaker, that will clip when ever the unit exceeds the maximum of power drawl. If this breaker clips in to protect mode continuously, stop using the amplifier immediately and contact customer support, the unit my need to be serviced.

# SPECIFICATIONS

MODEL NO:	GX-300	V-2000 MKII	V-3000	V-4000
Output Power: 2 ohms, 1 khz 1%THD 4 ohms, 1khz, 1%THD 8 ohms, 1khz 1%THD (Bridge Mode, mono) 4 ohms, 1khz, 1%THD 8 ohms, 1khz, 1%THD	N/A 150W RMS PER CH. 100W RMS PER CH.	540W RMS PER CH. 400W RMS PER CH. 280W RMS PER CH.	800W RMS PER CH. 600W RMS PER CH. 360W RMS PER CH.	1400W RMS PER CH. 1010W RMS PER CH. 600W RMS PER CH.
Total Harmonic Distortion: 20Hz-20kHz, @ rated output power, 8 ohms	Less than 0.1%	Less than 0.1%	Less than 0.1%	Less than 0.02%
Input Sensitivity and Impedance: @ rated output power, 8 ohms	.775v RMS (0 dBv)	1.0v RMS (0 dBv)	1.0v RMS (0 dBv)	1.0v RMS (0 dBv)
Dimensions & Weight:				
Height	3.5" (88cm)	3.5" (8.8cm)	3.5" (8.8cm)	5.25" (13.3cm)
Width	19" (48.3cm)	19" (48.3cm)	19" (48.3cm)	19" (48.3cm)
Depth	8.86" (220.cm)	15.9" (40.5cm)	15.9" (40.5cm)	15.9" (40.5cm)
Weight	16.3 Lbs. (4.1 kg.)	30 lbs. (13.6kg)	31 lbs. (14 kg.)	61.7 lbs. (28 kg.)
Frequency Response: +/- 1db, 1w RMS. 8 ohms +/- 0.2 db, @ rated output, 8 ohms	10 Hz - 40 KHz 20 Hz- 20 KHz	10 Hz - 40 KHz 20 Hz - 20 KHz	10 Hz- 40 KHz 20 Hz- 40 KHz	10 Hz- 40 KHz 20 Hz- 40 KHz
Hum & Noise: Below rated output, 8 ohms	100 dB, unweighted	100 dB, unweighted	100 dB, unweighted	100 dB, unweighted
Power Consumption: @ rated output power, 8 ohms	5A @ 120v AC	7A @ 120vAC	10A @ 120vAC	40A @ 120vAC
Cooling System:	1 Dual Speed Fan and Heatsinks	2 Dual Speed Fans and Heatsinks	2 Dual Speed Fans and Heatsinks	2 Dual Speed Fans and Heatsinks

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